

UNITED STATES PATENT OFFICE.

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FINISH-REVIVER.

No. 907,758.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARLETON ELLIS, a citizen of the United States, residing at Larchmont, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Finish-Revivers, of which the following is a specification.

This invention relates to a composition of matter for the removal of scratches from the varnished surface, or "finish" of furniture and similar objects, and for imparting to said finish a high degree of brilliancy, and relates particularly to compositions comprising two immiscible liquids capable of temporary emulsification upon agitation, each liquid possessing a distinct and characteristic color, so that upon intermixture the resultant color of the blended liquids differs from either of the colors possessed by the immiscible liquids; all as more fully hereinafter set forth, particular points of novelty being specified in the subjoined claims.

In the treatment of finished surfaces for the purpose of removing adhering dirt, grime, etc., and in the endeavor to obliterate scratch marks, it has been customary to use immiscible liquids, such, for instance, as oils with water containing butter of antimony and the like. Such compositions are often times very strongly alkaline, or strongly acid, and have a sensible action upon the finish, frequently attacking the finish with considerable violence, if allowed to remain thereon for some time. These compositions furthermore, prior to use, must needs be vigorously agitated in order to blend the oil and aqueous solution. Up to the present time, so far as I am advised, there has not been proposed any sort of indicator which shows the condition of such intermixture, so that in using these preparations it frequently happens that the aqueous material will partially settle, and the composition as poured from the container, for application, will contain an excess of oil, hence will not act satisfactorily. For these and other reasons, furniture polishes, so called, are not at present held in particularly high esteem.

It is the object of the present invention to produce a mixture, or composition, which may be made, if desired, entirely neutral; which will have a pronounced and specific action as regards the obliteration of scratch marks; which will have the property of re-

moving grease and grime from the finished surfaces, and which will cleanse, freshen and brighten the surface so as to give the effect of a new coat of finish.

It is furthermore the object of this invention to produce a color indicator which will show at any time the precise condition of the mixture, so that the operator at a glance can determine whether, or not, the component parts of the composition are properly blended. For this purpose, as heretofore stated, I make use of two immiscible liquids, one preferably of an oily character and the other preferably of an aqueous character; to these liquids are added coloring materials which impart to each liquid a distinct and characteristic color, different from the other. I preferably employ for this purpose dye-stuffs which afford two primary colors, so that upon intermingling of these colors, by the agitation of the composition, the third, or complementary, color is produced. For example, the oil layer, or oil component, may be colored a vivid red, by means of an oil soluble dye, while the aqueous layer may be colored a vivid yellow, by means of a water soluble dye. Upon intermingling the liquids by agitation, the resultant color is a vivid orange, and the uniformity of this coloration indicates at any particular moment the approximate degree of homogeneity of the emulsion. On standing for a short time, the oil with its coloring matter rises to the surface, while the aqueous material settles to the bottom, forming a red layer at the surface and a yellow layer at the bottom, and an intermediate zone of orange, of greater or less extent in proportion to the lapse of time after agitation. Similarly the oil layer may be colored blue and the aqueous layer yellow, so that on intermingling, a bright green will be produced. Of course, if the components of the mixture are such that the two immiscible liquids are naturally highly, vividly and characteristically colored, no dye-stuffs need be used, but in practice I have found that to secure a color indicator which is decisive, it is preferable to charge the liquids with strong coloring agents.

As an illustration of my invention, and as now representative of the invention in its preferred form, I give the following formula: Eleven parts of water, nine parts of alcohol, preferably a high grade wood alcohol, such as used in the manufacture of formaldehyde,

and one part of sulfonated castor oil, all by volume, are mixed and colored with auramine to give a vivid yellow color. Equal parts of kerosene and neutral oil are mixed and colored with an oil soluble red dye. These two solutions are filtered and mixed in equal proportions; a small amount of artificial oil of wintergreen may be added if desired. The two immiscible liquids, on moderate agitation, quickly intermix to form a bright orange-colored emulsion. This emulsification is aided by the soluble oil, which also exerts a peculiar action upon the finish, brightening and freshening the finish and acting upon the white finely powdered materials of the scratched portions of the finish, causing such white markings to disappear. The action is aided by the alcohol and oil present in the composition. It is, of course, desirable to use a water soluble dye-stuff which does not dissolve in oils, and conversely the dye-stuff used in the oil should not be appreciably soluble in water or alcoholic solutions. By the use of soluble oil I am enabled to prepare a neutral easily-emulsifiable composition, which would not be the case were ordinary soaps used, as common soap when dissolved in water invariably yields an alkaline reaction, even though it may contain sufficient fatty acid theoretically to neutralize the alkali. This presumably is due to hydrolysis, which is not in evidence with properly prepared sulfonated oils. The latter may even be made faintly acid without separation of fatty acid.

I may make use of various other oils than those specified in the formula, such for instance, as various other petroleum oils, or animal or vegetable oils, including drying oils, such as linseed oil. Volatile material, such as turpentine, wood turpentine, oil of camphor, carbon tetrachlorid, benzin, or benzol, etc., may also be incorporated, in place of wood alcohol acetone and various acetone compounds derived in the manufacture of wood alcohol, also denatured alcohol, or other alcoholic bodies may be employed. The alcohol may be omitted under some circumstances. The soluble oil is preferably a sulfonated castor oil made neutral with soda, or other alkali, but other sulfonated oils may be employed, such as sulfonated cottonseed, or corn oils, including what are known commercially as "solid" soluble oils, which when freed from water are of quite firm consistency. The dye-stuffs which may be employed are, of course, quite numerous, and while those which I

have mentioned are particularly desirable, I may make use of any basic or acidic dye-stuffs, or other coloring material, which is soluble in the liquids employed in the manner as above set forth.

The composition may be given an agreeable odor by any suitable perfuming material; the artificial oil of wintergreen, above specified, being especially desirable, although oil of lemon grass, amyl acetate, etc., may be employed when desired, in greater or less quantities.

While, as stated, I prefer to color the two layers in such a manner as to produce distinct, characteristic and vivid primary colors of a different character, I do not wish to limit myself to a precise manner of coloration. It is, however, important to color the two layers so vividly that the third, or complementary, color developed by agitation is bright and distinct, so that the exact condition of the emulsion may be determined at any moment by rapid inspection.

What I claim is:—

1. A finish reviver, which comprises a plurality of differently and vividly colored immiscible liquids, including oil and water.

2. A finish reviver, which comprises two differently, characteristically and vividly colored immiscible liquids.

3. A composition for removing scratches on finish, which consists of oily material and aqueous material, said oily material being colored a vivid red and said aqueous material being colored a vivid yellow.

4. A composition for removing scratches on finish, which comprises a mixture of petroleum oil and water, said oily material being colored a vivid red and said water being colored a vivid yellow, and the latter carrying in solution a sulfonated oil.

5. A composition for removing scratches on finish, which consists of petroleum oil, water, alcohol and soluble oil, said oil and water being differently and vividly colored.

6. A composition for removing scratches on finish, which consists of eleven parts water, one part soluble oil, nine parts wood alcohol, all colored with yellow dye and an equal volume of a mixture consisting of equal parts of kerosene and neutral oil, vividly colored with an oil soluble red dye.

In testimony whereof I have affixed my signature in presence of two witnesses.

CARLETON ELLIS.

Witnesses:

BIRDELLA M. ELLIS,
THEODORE ELLIS.